

Disruption or interruption to Schools during Covid-19 in the United Arab Emirates: A Rapid Review of Impact and Mitigation Efforts

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Abstract

This study explored the level of readiness of schools in the United Arab Emirates (UAE) to use remote learning during the COVID-19 pandemic. To safeguard students and ensure the continuity of education, the UAE's education system implemented online learning to address extended school closures and sudden changes in normal school operations caused by the COVID-19 pandemic. As a result, schools were forced to quickly adapt to online instruction despite its challenges during lockdowns and isolation. Furthermore, the study provided insight into the theoretical underpinnings of the UAE's massive implementation of distance learning in schools. Moreover, various distance learning programs were implemented by schools to facilitate students' and instructors' education across schools. The findings of this study may be used to strengthen educational systems and accelerate educational opportunities by providing evidence for better orienting and adapting policy responses in emergencies in the UAE.

Keywords: Covid-19, United Arab Emirates, disrupt learning, online learning, mitigation.

1. Introduction

A new coronavirus (COVID-19) that causes respiratory illness was first identified on December 8, 2019, in Wuhan, China, and subsequently

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reported to the public by the end of the year (Chen & Yu, 2020; El-Jardali et al., 2020). On January 29, 2020, the first confirmed case of COVID-19 was found in the UAE, and the number of reported cases has increased exponentially ever since (Moonesar et al., 2020). Key UAE policies, laws, regulations, and decrees have been announced for immediate implementation to limit the spread of COVID-19, prevent panic, and ensure the well-being of citizens and the healthcare system's ability to meet rising demand (Moonesar et al., 2020).

Covid-19 is one of the historic pandemics which has caused significant disruption in human life. Despite being a deadly virus, Covid-19 forced individuals to change their way of life to avoid its spread. Specifically, health experts advise people to keep social distance since the virus is contagious and can be passed from one person to another through physical conduct. Numerous nations have adopted distant education, with the mediums and methods of delivery being shaped by local circumstances and available resources (UNESCO, 2020). Many schools, however, have kept at least some face-to-face instruction and learning, albeit with significant adjustments to daily operations due to factors such as new hygiene and distancing regulations. More than 90% of the world's school-aged learners were predicted to be affected by the height of school closures in early April 2020 (UNESCO, 2020). By August 2020, students in 108 countries had missed, on average, about ten weeks of in-person instruction due to COVID-19 school closures, as reported by the Survey on National Education Responses (REDS) to COVID-19 School Closures (UNESCO, UNICEF & the World Bank, 2020).

As a result of the disruptions brought on by the pandemic measures, schools were presented with new challenges in terms of the monitoring of student learning. As an initial response, many school districts pushed for the implementation of home-schooling and distance learning; they provided students with access to free online materials; they sent homework assignments home on paper; and they aired educational programming on public television and radio (UNESCO, UNICEF & World Bank, 2020). Education in the United Arab Emirates (UAE) was affected by the virus as schools were forced to close, students had to maintain social distance, and many institutions adopted online learning where students and teachers interacted virtually through digital tools and the internet (Chaaban et al., 2021).

There are many arguments regarding the education sector in the UAE, as some people believe that the pandemic disrupted it, while others believe Covid-19 caused a mere interruption in learning. This paper ascertains whether the Covid-19 pandemic caused a disruption or interruption to schools in the UAE and then reviews the impacts and mitigation efforts regarding the pandemic.

2. Disruption versus Interruption

Interruption is when someone or something temporarily prevents something from happening (Cambridge dictionary, 2022). However, according to the Cambridge dictionary (2022) and Merriam dictionary (2022), disruption prevents something from continuing as usual or as expected, especially a system, process, or event. Additionally, according to the REDS, disruption is the first period in a country following the pandemic's start. Most schools were closed to most students, and most teaching and learning took place outside school buildings (Meinck et al., 2022). It should be noted that this definition does not include any dates (which may vary across countries) or modes of learning (e.g., computer-delivered or otherwise) during the period. The definition is based on school closures and the result that teaching and learning occurred outside the school's physical location. The definition includes the requirement that school closures only apply to most schools and that most teaching and learning occur outside school buildings (Meinck et al., 2022).

The pandemic has caused a significant and abrupt change in human life. In the education sector, concerned stakeholders have been forced to alter the learning approaches. Due to the pandemic, many countries implemented restrictions on public activities, such as school and workplace closures, work-from-home policies, travel bans, etc., significantly impacting daily life in many parts of the world. Many people worldwide were affected by these restrictions, and it is safe to assume that the well-being of both students and teachers was negatively impacted by the lack of clarity surrounding the restrictions' duration and subsequent changes. When so many aspects of life were uncertain, it would have been easier to adapt with the right help (Chaaban et al., 2021). Many students from different countries expressed concern that the pandemic would have a lasting impact on their education and that they would be unable to cope with the events happening both at home and abroad (Chaaban et al., 2021). Students in most countries agreed that missing out on social interactions with peers was a significant issue. Still, that over half of them had at least one teacher they felt comfortable approaching for assistance (Chaaban et al., 2021).

Although the adverse effects of the pandemic on students' and teachers' well-being, teachers seemed to develop coping strategies allowing them to address the challenges successfully. Seven of ten countries said that at least two-thirds of educators could successfully juggle their professional and personal commitments. When working from home, more than half of teachers reported feeling in control of their work environment, and almost as many reported having time to socialize with colleagues (Chaaban et al., 2021).

Due to the pandemic, many countries implemented restrictions on public activities, such as school and workplace closures, work-from-home policies, travel bans, etc., significantly impacting daily life in many parts of the world. Many people worldwide were affected by these restrictions and the subsequent lack of clarity regarding their future existence; this includes, presumably, students and teachers. Having the right kind of help at the right time would have been crucial for surviving the many upheavals that occurred during that period of uncertainty (Chaaban et al., 2021). Many students from different countries expressed concern that the pandemic would have a long-term impact on their education and that they would be unable to keep up with their studies because of the disruption (Chaaban et al., 2021). Even though students worldwide were sad to be away from their friends, over half of them still found at least one teacher they could confide in when they needed assistance (Chaaban et al., 2021).

Ascertaining whether the pandemic caused disruption or interruption in learning activities is necessary to prepare and determine the course of action. Further, the impacts and mitigation measures have to be highlighted to determine the direction of the education sector in the UAE. In the UAE, schools were compelled to close and move towards online learning.

3. How did the COVID-19 pandemic disrupt teaching and learning?

According to Essel et al. (2021), Covid-19 allowed audio and video teleconferencing in learning activities. In their study to investigate the feasibility of using these approaches in facilitating teachers of learners in rural areas in Ghana, the authors found that students had optimistic attitudes and approved of these learning approaches. However, students and teachers had a knowledge gap in using the technological tools leading to reluctance to use audio and video teleconferencing. Given this gap, the authors recommend that teachers and learners be educated on these teleconferencing methods. Internet connectivity hindered effective learning, especially for students in rural areas necessitating the need for flexible learning (Essel et al., 2021). In research to measure the impact of the pandemic on learning activities, Owusu-Fordjour et al. (2020) conducted a descriptive survey. They administered questionnaires to 214 students to assess their perspectives on learning during the pandemic. The research found that many students encountered difficulties and could not learn effectively at home. This challenge made online learning ineffective. On the other side, the parents were incapable of helping their children access digital platforms. Further, the parents could not effectively supervise learning at home (Owusu-Fordjour et al., 2010).

Hone and El Said (2016) concluded that the pandemic adversely affected learning. Students were not used to learning alone; many could not access the internet, while others needed more technical knowledge regarding online learning platforms. Technological devices are expensive, and many students need help to afford suitable devices like computers and phones. For this reason, the researchers recommended that learners use offline teaching approaches that supplement classroom learning and benefit students who cannot access quality internet connections (Owusu-Fordjour et al., 2010). Gigliotti (2020) researched to measure the perception of campus readiness and the repercussions of learning through a disruption. The sudden shift towards online learning raises concerns regarding curriculum delivery, engagement of virtual teams, and the general of higher education. The research found that the shift to complete online learning was centered on the deployment of emergency operations, continuing leadership communication, investment in the proper infrastructure, and offering student-centered responses to the crisis in the learning sector. The author describes the pandemic as a historical issue that caused disorientation and uncertainty in the learning environment Gigliotti (2020).

According to Yunusa et al. (2020), the outbreak of Covid-19 has exposed significant vulnerability in the education system, making even advanced economies encounter difficulties in ravaging the pandemic. Developing nations, specifically Nigeria, faced a lot of disruption, which affected learning in higher education institutions. For this reason, the author conducted a quantitative study to ascertain the lecturer's perspectives concerning the pandemic. The findings indicate that the virus had adverse effects except for a few universities that switched to online learning platforms. Most tutors were confident in switching from the traditional classroom to digital learning (Yunusa et al., 2020). Gallagher-Mackay et al. (2020) investigated the disruptive effect of Covid-19 in Ontario through the lenses of school closures and the medium of educational provision. The pandemic caused learning hardships for students in low-income families, indigenous groups, and learners with disabilities causing significant inequalities in learning outcomes. The health risks and safety concerns caused physical and mental harm to the learners. Given these challenges, the authors recommended applying the right strategies to prevent further disruptions affecting the education sector in Ontario. Concerned stakeholders have to track areas challenging students and install systematic support to aid in recovery and curbing of the challenges (Gallagher-Mackay et al., 2020).

A further challenge to teachers during the COVID-19 disruption was the assessment of student learning. Given that most classrooms transitioned to remote education, paper-based assessments may have

become more challenging to administer and supervise. Therefore, teachers might have had to adjust how they assessed student learning. In the UAE, nearly more than half of teachers or teacher respondents (60%) who remained active during the COVID-19 disruption stated that they continued using the same types of assessments and that their students completed assessment tasks with the same regularity (Chaaban et al., 2021).

Regarding the performance of the assessments used during the disruption, in the UAE, nearly more than half of teachers agreed that the assessments adopted during the disruption allowed them to monitor student learning appropriately and that the results from these assessments were an accurate reflection of progression in their student's learning over the COVID-19 disruption. Despite many teachers agreeing that student assessments performed well, a large portion of teachers and teacher respondents claimed that the disruption assessed students with special needs and practical aspects of student work (e.g., science experiments, art projects, music performances) more challenging (Chaaban et al., 2021).

4. What did schools do to help students return to regular schooling?

What was happening within schools to help prepare students to return to regular schooling, and how could the experience of schooling during the pandemic positively impact future schooling? The impacts on future schooling may relate to actions taken within schools during the pandemic, and reflections on the experience of managing during the pandemic may result in school systems and school communities being better prepared should similar disruptions occur in the future (Chaaban et al., 2021).

Remote learning during the pandemic has largely been facilitated by concerned stakeholders' pedagogical and technological adaptation. The availability of technical support is necessary to facilitate online learning. However, teachers and the teaching approaches chosen are more critical than the availability of technology and learning modalities chosen. Teachers had to adapt pedagogical approaches which facilitate proper learning interactions. The learning leadership, including the ministries of education, played a significant role in facilitating learning adaptation and providing the proper technological support (Gigliotti, 2020).

According to Chaaban et al. (2021), the pandemic disrupted learning activities in the UAE, forcing individuals in teaching leadership to engage in leadership practices aimed at promoting student learning, professional development, and teachers' capacities to deliver quality

education during the pandemic. In their qualitative study, the authors found that the virus challenged and limited learning opportunities necessitating the need to have proper learning leadership, which has the responsibility of spearheading educational reforms through critical analysis of available learning opportunities. Remarkably, the leadership has to oversee the transition toward the usage of online and other modern learning pedagogies (Chaaban et al., 2021). Pedagogical and technological support were the basic requirements that facilitated the effective adoption of remote learning. However, the shift toward remote learning had some deficiencies linked to slow technological adaptation. In many institutions, the transition was slow as the concerned stakeholders had to learn the technical requirements of online learning. Institutions that received adequate technical support could transition smoothly and have effective remote learning. Without the support, several institutions halted learning, and students had to remain at home without interacting with their teachers (Gigliotti, 2020).

5. Scenario in UAE

The pandemic allowed remote learning to be adopted and built the necessary infrastructure to facilitate online learning. Before the pandemic, many institutions believed in the traditional classroom setting, which was expensive and required much time. During the pandemic, online learning was developed, and all stakeholders, including parents, students, teachers, and teaching leaders, adopted the right skills and perceptions towards remote learning. Remote learning has become one of the most preferred learning approaches, as many institutions still use it after lockdowns have been lifted (Gallagher-Mackay et al., 2021).

Due to school closures and the introduction of new forms of distance education, schools need to revise their methods of interacting with parents and guardians. Digitization of classroom instruction and student learning had already been a norm in schools before the COVID-19 upheaval (Opalinski, 2001). After the COVID-19 pandemic, there was an immediate need for increased use of ICT-based communication within school communities. Due to social distancing measures and school closures, schools have increasingly turned to digital communication methods, providing feedback on student learning and assessing student progress (UNESCO, UNICEF & the World Bank, 2020).

The majority of schools in the UAE shifted to online learning. This shift was necessary because it helped maintain social distance. The transition was rough, and some people objected to the shift citing unpreparedness and inequalities, especially for students in remote areas. The transition required parents' interventions as they had to

supervise their children as they learned at home (Essel et al., 2020). Institutions which adopted online learning were successful and continued to learn during the pandemic despite the usual challenges like poor internet connectivity and lack of the appropriate infrastructure.

5.1 Academic Impact

Students and teachers encountered difficulties making learning less effective (Yunusa et al., 2020).

Many students and teachers were unfamiliar with the e-learning environment during the onset of the pandemic. This knowledge gap was primarily because many learning institutions only used the traditional learning approach.

Academically, the disruption negatively affected the students. Some of the students developed mental issues like stress associated with health concerns and social constraints. On the other hand, many students need help to learn effectively through remote platforms. The parents cannot supervise their children as the teachers did in classroom settings (Gallagher-Mackay et al., 2020). Given that the learning was ineffective, students experienced a reduced academic performance characterized by low scores and reduced graduation rates. However, academic performance continues to increase as students become more familiar with remote learning (Gallagher-Mackay et al., 2020). Stakeholders in educational leadership had to design necessary measures to ensure familiarity with the right technological tools. For instance, the teachers and students were trained, and flexible learning schedules were designed to ensure everyone was at par with the learning approaches (Yunusa et al., 2020).

A positive relationship between teachers and students may influence their academic, behavioral, and socioemotional skills (Davis, 2003). A vast majority of students in the UAE agreed that their teachers made it clear how to contact them best and were available for help when needed. About as many students stated that their teachers gave feedback they could understand. Further, two-thirds or more students agreed that their teachers made a special effort to keep in contact with them (Chaaban et al., 2021).

5.2 Teacher Preparation and Professional Development

Since the pandemic was abrupt, many teachers never had the opportunity to prepare and develop their skills to fit the teaching requirements. The pandemic compelled teachers to prepare and develop their skills to deliver quality education through remote learning. Very few institutions practiced remote learning; hence many

tutors had to learn and undertake professional development during the pandemic. As a result, learning in the initial periods of the pandemic was less effective. However, as teachers continued to prepare and gain skills, learning became effective and attained its optimal condition (Chaaban et al., 2021). Overall, teachers in the UAE reported more professional development opportunities than in other countries before the disruption.

5.3 Challenges Encountered in Transition to e-Learning Model

Since many schools were forced to close because of the COVID-19 pandemic, it was important for those that remained open to finding alternative ways to supply students with materials and disseminate information. According to REDS, over half of UAE students have participated in video conferencing with classmates during lessons or used a computer to share ideas on schoolwork (Chaaban et al., 2021). Additionally, nearly two-thirds of students reported using email to communicate with their teachers, while individual videoconferencing sessions with teachers were less common. In addition, 52% of UAE students said they picked up their supplies from the school rather than having them shipped (Chaaban et al., 2021).

The transition to remote learning confronted many teachers with challenges regarding how feedback on their students' schoolwork would be provided. During the COVID-19 disruption, students were surveyed by REDS to find out how they were given feedback on their schoolwork by teachers. Remote UAE teachers (or teacher respondents) said they were more likely to give students verbal feedback during lessons, either one-on-one or in small groups, and that this feedback increasingly covered students' observed performance on practical tasks. More than half of UAE teachers who use distance education say they have increased the amount of feedback they give students through electronic means such as email, instant messaging, or the school's learning management system (Chaaban et al., 2021).

The fundamental challenge encountered in the transition is familiarity with the e-learning environment. The pandemic happened suddenly; hence no adequate time to familiarise me with the learning platforms. Secondly, the lack of infrastructure caused impairment in the transition. For instance, some students needed help to afford computers and a strong internet connection that could keep them in touch with the teachers. The lack of resources like digital books and learning aids affected the transition (Essel et al., 2020).

Many learners and tutors needed to be more welcoming of online learning as they cited reasons like lack of support and inefficiency of the model. The initial resistance posed a significant challenge, thus

impairing learning during the pandemic (Essel et al., 2020). Lack of support made many institutions resistant to implementing remote learning leading to time wastage (Essel et al., 2020). In addition, the failure to embrace the model led to a lack of commitment, resulting in poor academic results. However, many stakeholders welcomed the model as they experienced its efficiency, simplicity, and convenience. The repulsion also reduced as institutions set the proper infrastructure to facilitate remote learning.

6. UAE Mitigation Phase

UAE is one of the regions which have adapted to mitigate the disruption caused by the pandemic. Learning institutions accepted the disruption and began offering students economic, mental, and social support. Many high-learning institutions adopted remote and on-campus learning while observing social distance. Students have been educated on remote learning platforms, and learning institutions have deployed systematic plans to undertake the sudden shift to online writing. These mitigation measures have significantly facilitated learning throughout the pandemic (Owusu-Fordjour et al., 2020).

Many teachers in the UAE were quick to transform the pandemic's challenges into opportunities (Chaaban et al., 2021). The teachers welcomed online learning after the closure of the schools. In the region, all schools were closed at the onset of the pandemic, necessitating children to learn at home. The regulative authorities, including ministries of education, were quick to make decisions, regulate remote learning, and provide necessary resources that aid learning. The teacher leadership in the region facilitated collaboration between various stakeholders, leading to effective learning (Chaaban et al., 2021).

Although most students were not conversant with teleconferencing tools and other devices, they were supportive and welcomed the move toward online learning. Further, many students, especially those in rural areas, could not access an internet connection which is a primary requirement for online learning. Technical knowledge is required on how to use these digital learning pedagogies. All stakeholders must work together and support each student to access suitable materials and technical knowledge on digital learning. Further, flexibility should ensure that every learner gains a quality education regardless of the inconveniences (Gigliotti, 2020).

In developing students' competencies, teachers must adopt a learner-centered approach that aims to meet all student learning requirements. Teachers should design strategies that ensure maximum learners' participation, encourage knowledge acquisition,

and provide proper support (Essel et al., 2021). For instance, the proper schedules must be instituted to ensure convenience for the learners. Secondly, theoretical work should be learned through online platforms, while practical tasks should be supervised physically by the teachers to ensure competency.

After the pandemic, collaboration among all stakeholders will be valued. Teachers, students, parents, and other participants must collaborate to facilitate comprehensive education (Essel et al., 2021). Remote learning will continue to be incorporated into learning as many institutions have fully transitioned to online learning. After the pandemic, students will require tailored support to help readjust and recover lost time. During the pandemic, many students did not learn because of infrastructure insufficiency. Tutors must help recover the lost time by adapting the teaching approaches and schedules (Essel et al., 2021).

7. Implications

The pandemic ushered in the full adoption of online learning. The right policies and regulations are needed to guide the development and expansion of remote learning. Modern infrastructure, including digital devices and an internet connection, is needed to adapt to the disruption caused by the pandemic. Online learning requires extensive investigations to ascertain its actual effects on learning outcomes. Given all these concerns, all education sector stakeholders must collaborate to facilitate effective learning.

The shift in the modality happened abruptly as learning institutions were forced to adopt online curricula without any preparation. Many students were left behind, especially those who needed more infrastructure for the online curriculum. Further, online learning was found to be less effective compared to in-person classroom learning. Once the lockdowns are lifted and the authorities allow learning institutions to resume classroom learning, all stakeholders in the education sector should work together to recover the lost time and ensure students catch up with syllabus schedules. Further, the stakeholders can adopt online and classroom learning to ensure effective and comprehensive learning.

Online learning has been intensified as a learning method by many institutions at various educational levels. Throughout the pandemic, many tertiary learning institutions began offering online courses. This shift means online learning will remain even after the pandemic. Stakeholders in the learning sphere must brace themselves and undertake the necessary preparations needed to facilitate digital learning. Preparing for online learning involves setting the proper

infrastructure, and training all the stakeholders, especially teachers and students, to ensure they are conversant with the modern technology used in learning. This move will enable learning institutions to combat any future catastrophe hindering physical learning.

8. Recommendations

- Conduct real-time research to ascertain the extent of the disruption to the educational outcomes in the UAE.
- Increase the funding to educational institutions to facilitate adequate preparation to adapt to the disruption.
- Authorities in the education sector should supervise the implementation of the online curriculum to ensure that no students are left behind due to shortcomings like poor infrastructure and home-based distractions.

9. Conclusions

The Covid-19 pandemic caused a substantial disruption of learning in the UAE. Changes adopted after the pandemic caused a shift in learning approaches which will persist after the pandemic. One of the significant transitions was the move toward online learning. Many institutions have continued with off-classroom learning even after the lockdowns were lifted. Further, many students prefer online writing as it is more convenient. Institutions have adopted strategies of preparing for future shocks in the education sector, as other possible events can disrupt learning.

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